GEOGRAPHIC SCHOOL BULLETINS

THE NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON 6, D.C.

VOL. XXXV, NO. 8, NOVEMBER 19, 1956 . . . *To Know This World, Its Life*

► War and Peace in Sinai

► *Mayflower* Sails Again

► Chicle

► Wild Turkey, Woodland Wizard

► Central Europe

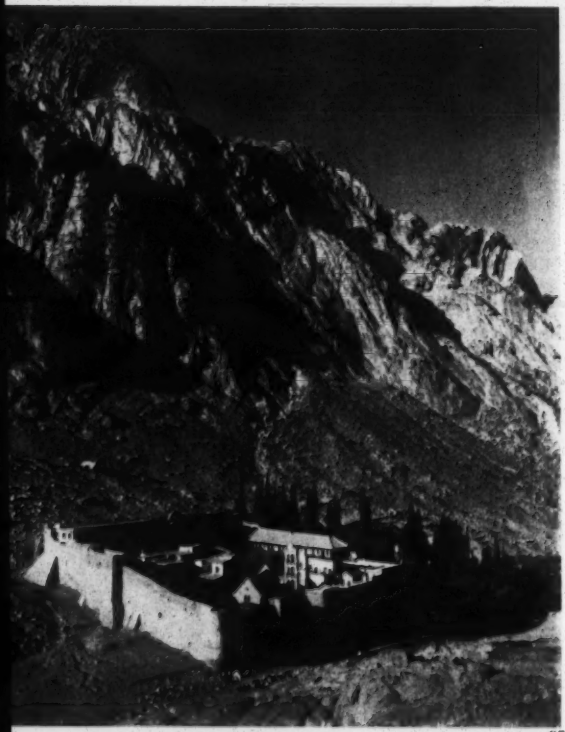
In Moravian dress these Czechoslovakian lasses chatter after church. National costumes and dances, colorful hallmarks of old kingdoms, regions, even villages, still blossom in Europe on special occasions.

FERDINANA BUCINA

Turn to page 93 for a geographic rundown of central Europe's headline-making countries.

also called Gebel Musa (Mountain of Moses), where the patriarch received the Ten Commandments (Exodus 19-20). At its foot, in the south-central part of the peninsula, the Christian faith has flowered for 1,400 years at St. Catherine's Monastery. The lonely walled retreat guards one of the world's best-known libraries.

The Wilderness of Tih in the central regions is one of earth's most desolate places. Winds whip constantly across it. Some scholars believe this is the Biblical "Wilderness of Zin" where "the children of Israel murmured against Moses and Aaron in the wilderness . . ." (Exodus 16:2).



WILLIAM B. AND GLADYS TERRY 87

ST. CATHERINE'S MONASTERY snuggles against Mt. Sinai, from whence Commandments came

For centuries the peninsula has grown drier, and Bedouin sheep herds diminish steadily. Yet wandering tribesmen, dwelling in camel's-hair tents, call Sinai home. Other people have lived in its barrenness. Northwest of Mount Sinai once stood a Christian city, Pharan, a thriving community as early as the second century. It became the seat of a bishop about the year 400. Moslems eventually drove out the Christians and ruin fell on the city. It revived but only briefly under the Crusaders in the 12th century. Now a stone-strewn desolation, scientists have explored its rock-cut tombs.

Still other archeological finds beckon scientists to Sinai. In one of the ancient Egyptian turquoise mines at Sarabit el Khadim, near the Gulf of Suez, are proto-Sinaitic inscriptions—the oldest group of writings in our alphabet—dating from the early 15th century B.C. Most of them say merely, "I son of ——passed this way."

Perhaps the oldest road on earth winds among northern sand dunes. Nearly 2,000 years ago the Holy Family moved along it in flight from Herod to Egypt. That journey lighted the dawn of the Christian Era. But long before that it was part of the caravan route linking the Euphrates and the Nile.

The road has felt the tread of many armies. Eastward along the Mediterranean coast from the Bardawil Peninsula sprawls the flat-roofed town of El 'Arish, a disconsolate place, framed by bushes, acacia, and tamarisk. Napoleon once said, "He who holds El 'Arish holds the key to Egypt," thinking that inland wastes would bar invasion through Sinai's heart. Aircraft, fast transport, and modern well-drilling methods outdate the master strategist's maxim.—S.H.

National Geographic References: ***Maps*** "Lands of the Bible Today" (available soon; on paper, 50¢, on fabric, $1.00). ***Magazines*** December, 1955, "Petra, Rose-red Citadel of Biblical Edom," (75¢); December, 1954, "Crusader Lands Revisited," (75¢); December, 1948, "Sinai Sheds New Light on the Bible," (75¢). ***School Bulletins*** Oct. 10, 1955, "Gaza Clashes Echo Wars," (10¢).

UMI

WILLIAM B. AND GLADYS TERRY

War And Peace In Sinai

LOOK upon the heat-wasted, barren Sinai Peninsula and you'll find it easy to say, "Nothing ever happened here and not much could". But few places have left more searing chapters in mankind's record than this land bridge linking Africa and the Near East. Recent events added a new page as Israeli armored columns stabbed across the Wilderness of Tih (above) toward Suez.

Shaped like a rough-edged triangle, the peninsula juts south between the Gulf of Suez and the Gulf of 'Aqaba, twin arms of the Red Sea. It joins Israel in the northeast. The Suez Canal slices its northwest shoulder, lopping it off from the body of Egypt. Momentous events inevitably spring from such a location. Through this causeway to Eurasia men have struggled from the time of Moses.

The notion that Sinai is mostly a flat sandy desert is incorrect. Wind-tossed sands spread in a wide belt along the Mediterranean coast to the north. The glaring waste extends southward against the east side of the Suez Canal. Otherwise, Sinai is sandy only in patches. Its sky line tumbles with hills and, in many parts, mountains. For centuries, hermits have found peace among them.

Some stark, rocky peaks tower above 7,000 feet. Among them is Mount Sinai,

GEOGRAPHIC SCHOOL BULLETINS, copyright © 1956 by the National Geographic Society, John Oliver La Gorce, President. Published weekly during the school year by the School Service Division, Ralph Gray, Chief. Entered as second class matter, Post Office, Washington, D. C. International copyright secured. All rights reserved. Rates: United States, 75¢ for 30 issues (one school year); Canada, $1.00; elsewhere, $1.25. United States only, three years (90 issues) for $2.00. The National Geographic Society is a nonprofit educational and scientific society established for the increase and diffusion of geographic knowledge.

Chicle

THIS STICKY RESIN FROM CENTRAL AMERICA GIVES MILLIONS SOMETHING TO CHEW ON

PHOTOGRAPHS BY KURT SEVERIN

FOR good or ill, chewing gum is here to stay—especially the piece that got stuck to your shoe. Whether gum soothes you—as the ads say—when you chew it, or whether it jangles your nerves when you see someone else chomping delightedly, it has become a product of economic importance and geographic interest.

The crisp package of gum that pops from the shiny vending machine began life as a slow drip in the gloomy jungle. Chicle, most widely used base for billions of sticks, balls, and pellets that Americans chew each year, is a resinous substance tapped from trunks of tropical American sapote, or sapodilla, trees.

Less than a century ago an American, Thomas Adams, hoped to make commercial rubber from the gummy juice. When this bubble burst, he sank his teeth into the world's pioneer gum-manufacturing venture. In 1872, after suitable rumination, the U. S. Patent Office recognized his process.

Mexico, Honduras, and Guatemala produce most chicle. Guatemala's Department of Petén, adjoining both Mexico and Honduras, extracts a superior quality from a certain variety of its sapodillas.

To "chicleros" (chi-CLAIR-ohs) falls the task of bleeding the trees. Usually local Indians, these rugged harvesters work during the rainy season, when the sap runs freely.

UMI

INTERNATIONAL NEWS PHOTOS

MAYFLOWER SAILS AGAIN

TWO months ago, *Mayflower II*, a copy of the Pilgrims' chunky little seafarer, was launched at Brixham, a Devonshire fishing village 29 miles east of Plymouth, England. The vessel moved smoothly down the slipway. With a broncolike heave of her stern she reached her lifetime home—water. Townsmen cheered. Traditioned in shipbuilding, they called it "a proper launching."

The original *Mayflower*, 336 years ago this November 21, rocked at anchor in gray waters off Cape Cod. A year later, her thankful Pilgrims founded at Plymouth, Massachusetts, a lasting American tradition: Thanksgiving Day, when a whole people forget their cares and count their blessings.

Mayflower II was built by British subscriptions as a good will gesture to the United States. Her flax sails will gather next April's winds on a voyage to the United States commemorating the Pilgrims' brave journey to savage wilderness.

Seeing the small vessel renews one's admiration for the Pilgrims' courage. *Mayflower II* is only 180 tons, and stretches a mere 92 feet, a pathetic contestant against earth's second-largest ocean. She will use the navigational equipment of three centuries ago . . . except for a radio, required by law.

But a lot of people hopefully volunteered for posts among 21 crewmen and 30 passengers to be carried on the new *Mayflower*. They included school children and master mariners trained before the mast. Commander Alan Villiers will pick the complement carefully. He is an old hand at the sea and its sailing ships. See the *Cumulative Index* of the *National Geographic Magazine* for the many salty articles he has written.

After standing off Cape Cod while passengers and crew re-enact the signing of the Mayflower Compact, and stopping at Plymouth, *Mayflower II* plans to beat down the eastern seaboard and, possibly, up the Saint Lawrence to the Great Lakes. With ceremony behind, she will lie permanently in Plymouth, a memorial to British-American kinship and friendship.—S.H.

Toil and Trouble For A Chewing Gum Bubble

Chicleros of the Yucatán Peninsula, Mexico, boil milky latex in iron kettles, stirring it constantly until it coagulates. Impurities removed, they test the doughy mass and pour it into wooden molds to cool. In blocks weighing about 30 pounds each the tasteless chicle is taken by mule train to collection centers to be weighed and loaded on planes bound for export points.

TOP RIGHT, MYERS, THREE LIONS

PHOTOGRAPHS BY KURT SEVERIN

He slashes a "chewing gum tree" to start a trickle of chicle

Wearing boot irons like a telephone lineman, the chiclero climbs the tree trunk, held aloft by a rope attached to his waist. With a machete or sharp knife he slashes zigzag patterns in the bark as he ascends. The latex, future chewing gum, drains into a rubber or canvas bag placed at the base of the tree. When enough of the milky juice has been collected, it is transported by mule or on foot through the jungles to chiclero camps. Here it is processed into solid transportable blocks, ready for mule trains and a trip to collection centers.

Life is grueling for the chiclero in the steamy rain forest. Rising at dawn, he must seek out the right trees while plagued by mosquitoes and other biting insects. Often the trails turn to mud with the driving rains. In some areas, there is insufficient forage for mules, and all work must be done without their aid (left).

Eventually the blocks of chicle reach huge factories in the United States and other countries. Meanwhile, back in the jungle, weary but happy chicleros urge patient mules homeward again—a pleasant jingle of money in their pockets.—J.A.

EMIL BRUNNER

Battle-spent Budapest straddles the placid Danube

CENTRAL EUROPE

NOVEMBER is apt to be dark and damp in Budapest. In normal times, chestnut venders tend charcoal fires on street corners. Hungarian youngsters try to behave, for Mikulás (Santa Claus) is due on December 6. Naughty ones he turns over to his companion, Krampus, for spanking.

In turbulent Hungary, such customs may be suspended now. But the broad Danube still flows between the twin cities of Buda (left) and Pest, reflecting new buildings that replace those smashed to rubble in World War II.

The Danube tells part of the geographical story of Central Europe. Rolling southeast, it bisects the area where recent revolts against Soviet domination have electrified the world. The Danube comes to Budapest after forming the boundary between Czechoslovakia and Hungary. Below Hungary's capital, it slips through the Hungarian Plain where wheat shimmers and Magyar cowboys round up cattle. Traditionally, this was one of Europe's breadbaskets. Its produce funneled into Budapest—wheat, wool, cattle, wine, and lumber.

Coal, bauxite, and oil supply Hungarian industry, but most of nearly 10 million people farm. Their nation, once a mighty kingdom, is smaller than Indiana.

From Hungary, the Danube dips into

IFF, THREE LIONS

News vending is sometimes women's work in Poland

ALLAN BROOKS

WILD TURKEY, WOODLAND WIZARD

UNCANNILY quick to sense encroaching danger, the wild turkey can vanish from sight or range of his enemies as if possessed of a magic cloak. For many years, however, the wary wizard of brush and woodland threatened to perform another more tragic sort of disappearing act.

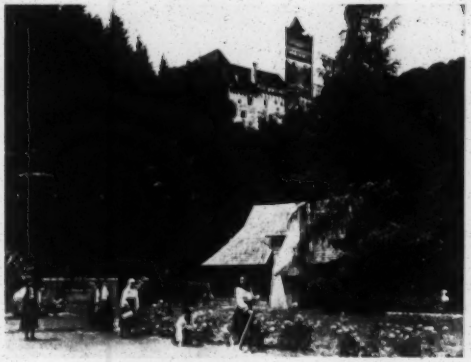
Largest American game bird of its type, an adult male wild turkey reaches four feet in length, with a five-foot wingspread. Deep brown and tipped with velvet black, he glimmers with iridescent tones of copper and metallic green.

When the first settlers arrived in America, wild turkeys thronged the virgin expanses from the Atlantic Coast to the Dakotas, from Ontario to southern Mexico. But as acre after acre of land yielded to agriculture, and the white man's gun invaded quiet woodlands with ever-growing frequency, the great flocks evaporated. Early in this century, their numbers had reached a critical low point in nearly all parts of their former range. In very recent years they have been brought back from the brink of extinction through careful regulation of hunting combined with restocking of certain areas.

Turkeys were known in Europe many years before the Pilgrims reached America. Spaniards brought them across the Atlantic from Mexico as early as 1519, and they soon spread through Europe. Today, rescued at least temporarily from extinction, the wild turkey represents a part of America's natural heritage which has been shared with virtually the entire world.—J.A.

IFF, THREE LIONS

POLAND has bitter winters, bringing snow to Warsaw streets. Once alive with parks, palaces, and churches, the capital lay in ruins after World War II. The nation lost between six and seven million men and women. Now many of Warsaw's buildings rise again. So does the resurgent patriotism of the Polish people.



WILHELM TOBIEN

ROMANIA meant brooding castles to many prewar travelers. This is Bran Castle, built by Teutonic knights to overlook Brasov in the Transylvanian Alps. After World War I, Romania gained mountainous Transylvania when the old Austro-Hungarian Empire fell. Near-by Ploesti pours out the Balkans' biggest oil yield.

© NGS

YUGOSLAVIA—Greeks founded the Adriatic port of Dubrovnik in the seventh century. As Ragusa, it held independent status for centuries—a rich city-republic of the Middle Ages, defended by its white fortifications. Small boats idling below tile-roofed 15th-century buildings reveal its present role as a resort.

IN FIELD, PASTURE, AND FACTORY, JAN AND MIHALY HAVE OLD ACQUAINTANCE WITH HARD WORK

lands stretch to the Black Sea, where Ploesti raises oil wells, and Bucharest, the capital, sits on the Danubian plain. Gay and sophisticated Bucharest used to be known as the Paris of the Balkans.

Romania matches Yugoslavia in population, falls a little behind in area. Neither country is as big as Oregon. Oil and natural gas give Romania considerable economic stature. Mountains supply lumber, coal, hydroelectricity. Yet most people depend on the soil.

Directly south of Romania, across the Danube, lies little Bulgaria, ridged across its middle by the Balkan Mountains. "Bulgar" means "man with a plow." So it's no surprise to find this a land of farmers who live in simple villages and work outlying fields—as they have done since the feudal system began. One traditional product of Bulgaria is rose blossoms. Distilled, their attar sold at sky-high prices. Today Bulgars produce crops and textiles, dig coal and salt, shackle mountain streams for power, make fertilizer.

Bulgaria's capital, Sofiya, almost became Roman Emperor Constantine's capital. He chose Constantinople (Istanbul) instead. Turks dominated Bulgaria until 1877 and Moslem influence still is strong. Easygoing Bulgarians once spent summer vacations on mountain lakes ringed by evergreens, or sun-bathed at the Black Sea port of Varna. Now Varna's name is Stalin.

Three other countries complete central Europe's roster. Tucked into Yugoslavia's southwestern corner, Albania is barely bigger than Vermont. About 1,250,000 people, mostly Moslems, farm between tower-

EUROPEAN PICTORIAL PRESS

ALBANIA—Hardy mountaineers pause on a rocky trail from upland fields and pastures. Some villages remain so isolated that only donkey paths like this connect them. Albanian clansmen, reminiscent of old Scottish highlanders, still wage vendettas to uphold honor. Christians, Moslems share the craggy country.

GEORGE PASKOFF

BULGARIA once looked to its capital, Sofiya, topped by minarets and cathedral towers, as the seat of culture. The mountain-framed early Roman city, once trampled by invading Huns, took on a modern look after 1879. Factories hummed, tobacco added its aroma to the persistent fragrance of attar of roses.

© NGS

CZECHOSLOVAKIA once gained world fame for Bata shoes made in this gleaming factory in Zlín. They were worn by people in every continent. Thomas Bata learned shoemaking in Lynn, Massachusetts, and brought American methods to his country. Most Czech factories are located near the capital, Prague.

RIVERS, MOUNTAINS, PLAINS SHAPE CENTRAL EUROPE'S COUNTRIES, SEPARATE THEIR PEOPLES

Yugoslavia, sprawled along the Adriatic. Mountain ranges writhe down Yugoslavia's length, turning the Danube aside. It skims past Belgrade, the capital, then veers east to border Romania.

Housing developments have changed Belgrade's war-damaged face, just as hydroelectricity, industry, and mining have altered life for many of Yugoslavia's 17,000,000 people. Yet some still wear jodhpur-like trousers and sheepskin vests. A sprinkling of fezzes and turned-up sandals indicate the tenth of the population that is Moslem. Blond Croats and Slovenes from the north contrast with the swarthy southern Serbs and Montenegrins. All were united in Yugoslavia after World War I. That conflict was touched off by an assassination at Sarajevo, a minaret-topped mountain town in the center of Yugoslavia.

Downstream, the Danube surges through the Iron Gate, a steep-banked pass in the Transylvanian Alps. These hills curve north and east from Yugoslavia into Romania to meet and blend with the Carpathians. The resulting horseshoe-shaped range seals off a big northwestern bite of Romania—Transylvania. Among its mountains, forests, and fertile valleys live a hodgepodge of peoples in a diversity of villages. Pointed steeples and carved gates show that townsfolk are Hungarian. (Hungary contained Transylvania until World War I ended.) Castlelike churches indicate Saxon influence. Romania's early Hungarian kings brought Saxons from Germany to bolster armies. Onion domes and bright-painted homes mark true Romanian villages.

Outside Transylvania lies Romania's Old Kingdom where fertile flat-

CENTRAL EUROPE STRETCHES FROM BALTIC TO ADRIATIC

ing hills. The Shkumbî River, south of Albania's capital, Tiranë, divides the populace into northern Ghegs and southern Tosks.

North of Hungary, in the heart of the European peninsula, Czechoslovakia snuggles among mountain ranges. In a narrow-waisted land, smaller than Illinois, some 13 million Czechoslovaks speak a variety of languages. Kingdoms of Moravia, Bohemia, parts of Silesia and Slovakia, Ruthenia, and parts of Hungary formed their country after World War I. Deposits of coal and iron gave it an industrial boost. Czech factories make shoes, textiles, machinery, munitions. Yet in the shadow of Carpathian ridges (scene of "Dracula"), peasant women gather fagots beneath ruined castles.

EMIL BRUNNER 96

Europe's coal-rich central plains flatten northern Poland, largest central European country. Its seacoast washes in the Baltic where modern Gdynia and old Danzig serve as ports. Inland, a complex of rivers, lakes, and marshes, add to the nation's hydroelectricity. With coal, iron ore, and the industrial area of Silesia thrown in after World War II, Poland is the only predominantly industrial central European country.

Warsaw, the capital, has known frightful devastation. So has all Poland. Its boundaries have shrunk, expanded, shifted. In 1795 and 1815 it disappeared altogether from the map. Now it's bigger than Arizona.

Some 27 million sturdy, tenacious Poles have never lost sight of their nation's former struggles for freedom.—E.P.

Yugoslavs window-shop in Rijeka, formerly Fiume